

CLAIM AMENDMENTS

Claims 1-18 are currently pending. Please amend claims 1-2, 13 and 15. No new matter is introduced. The claim listing below will replace all prior versions of claims in the application.

1. (Currently Amended) A method for processing data comprising:
 - (a) converting a stream of synchronous serial data associated with a source time slot in a time-division multiplexing frame into a plurality of parallel data units;
 - (b) constructing, during a synchronization interval, at least one subpacket in memory from the plurality of parallel data units;
 - (c) storing memory context information, including a destination time slot identifier, for each subpacket associated with the source time slot in a time-division multiplexing frame;
 - (d) constructing a data packet in memory, the data packet including at least one synchronization tag identifying the synchronization interval, a plurality of subpackets, and the respective memory context information associated with each of the subpackets; and,
 - (e) providing the data packet to a receiving mechanism.
2. (Currently Amended) The method of claim 1 wherein the receiving mechanism comprises an asynchronous switch and the method further comprises:
 - (f) receiving from the asynchronous switch the data packet, including a plurality of subpackets, at a destination and disassembling the data packet into subpackets, each subpacket associated with a destination time slot identifier.
3. (Original) The method of claim 2 wherein (f) comprises:
 - (f1) directing a subpacket into a play-out memory buffer based on the destination time slot identifier associated with the subpacket.
4. (Original) The method of claim 2 wherein (f) comprises:
 - (f1) directing a subpacket into a location within a play-out memory buffer based on the synchronization tag associated with the subpacket.

5. (Original) The method of claim 2 wherein (f) comprises:
(f1) determining a number of subpackets contained within the packet.
6. (Original) The method of claim 1 wherein the memory context comprises time slot identification data.
7. (Original) The method of claim 1 wherein the memory context comprises destination queue identification data.
8. (Original) The method of claim 1 wherein the memory context comprises enable data for enabling a data stream.
9. (Original) The method of claim 1 wherein the packet further comprises data identifying the number of subpackets contained therein.
10. (Original) The method of claim 1 wherein the asynchronous switch comprises a plurality of destination ports and the packet further comprises data identifying to which of the destination ports the packet will be supplied.
11. (Original) The method of claim 2 wherein (c) comprises:
(c1) storing memory context information for subpackets associated with each of a plurality of different source time slots.
12. (Original) The method of claim 11 wherein (c) comprises:
(c2) maintaining associations between a plurality of source time slot identifiers and a plurality of destination time slot identifiers.
13. (Currently Amended) A method for processing data comprising:
(a) converting a plurality of synchronous serial data streams, each associated with a source time slot, into parallel data units;

(b) constructing, in ingress memory, at least one subpacket from the parallel data units associated with one of the source time slots,

(c) retrieving ingress context data associated with the subpacket, the ingress context data comprising a destination time slot identifier, a queue identifier, and an ~~enable-variable~~ variable;

(d) constructing, in each of a plurality of queues, a data packet from subpackets and ingress context data associated with multiple source time slots, the subpackets within the data packet completed within a synchronization interval, the data packet further comprising i) at least one synchronization tag identifying the synchronization interval, and ii) data identifying the number of subpackets contained in the packet; and

(e) upon completion of a data packet, providing the data packet to the receiving mechanism.

14. (Original) The method of claim 13 wherein (c) comprises:

(c1) upon completion of a subpacket, reading from an ingress context memory the ingress context data.

15. (Currently Amended) A method for processing data comprising:

(a) providing an apparatus having synchronization logic and an asynchronous switch for routing synchronous signals among a synchronous network interface and an asynchronous network interface and synchronization logic;

(b) receiving a plurality synchronous serial data streams each from a different source time slot in a time-division multiplexing frame;

(c) constructing a data packet from a plurality of subpackets each derived from one the synchronous serial data streams and a respective memory context associated with each subpacket; and

(d) routing the packet through the asynchronous switch to one of the asynchronous network interface and the synchronous network interface.

16. (Original) A method for processing data comprising:

(a) receiving a data packet comprising a plurality of subpackets and ingress context data associated with multiple source time slots, the subpackets within the data packet completed within a synchronization interval, the data packet further comprising i) at least one synchronization tag identifying the synchronization interval, and ii) data identifying the number of subpackets contained in the packet;

(b) writing a subpackets into one of a plurality of playout buffers within an egress memory based on context data associated with the subpacket;

(c) writing the subpacket to a position within one of the plurality of playout buffers in accordance with the synchronization interval identified by the synchronization tag plus a fixed address offset; and

(d) sequentially reading the subpackets from the playout buffer.

17. (Original) The method of claim 16 further comprising:

(e) converting the data in the subpacket into serial synchronous data.

18. (Original) The method of claim 16 wherein the context data associated with a subpacket comprises a destination time slot identifier and wherein (b) comprises:

(b1) writing a subpackets into one of a plurality of playout buffers within the egress memory in accordance with the destination time slot identifier.